# Date created, 10/27/2017 - Subject to change. © Belimo Aircontrols (USA), Inc.

# **B248**, **2-Way**, **Characterized Control Valve** Stainless Steel Ball and Stem







WARRANT
WAITHAIT

Technical Data	
Service	chilled, hot water, up to 60% glycol
Flow Characteristic	equal percentage
Controllable Flow Range	75°
Size [mm]	2" [50]
End Fitting	NPT female ends
Body	forged brass, nickel plated
Ball	stainless steel
Stem	stainless steel
Stem Packing	EPDM (lubricated)
Seat	Teflon® PTFE
Seat O-ring	EPDM (lubricated)
Characterized Disc	TEFZEL®
Body Pressure Rating [psi]	400
Media Temperature Range	0°F to 250°F [-18°C to 120°C]
(Water)	
Max Differential Pressure (Water)	50 psi (345 kPa)
Close-Off Pressure	200 psi
Cv	29
Weight	2.9 lb [1.3 kg]
Leakage	0% for A to AB
Servicing	maintenance free

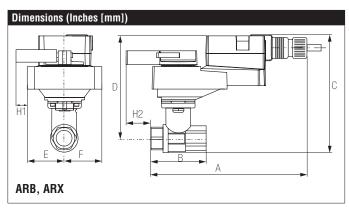


# **Application**

This valve is typically used in air handling units on heating or cooling coils, and fan coil unit heating or cooling coils. Some other common applications include Unit Ventilators, VAV box re-heat coils and bypass loops. This valve is suitable for use in a hydronic system with variable flow.

**Suitable Actuators** 

	Non-Spring	Spring
B248	ARB(X)	AFRB(X)

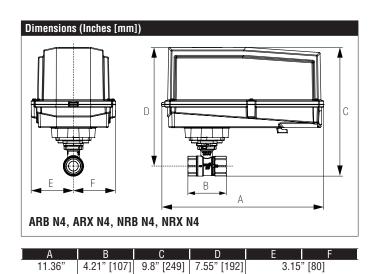


Α	В	С	D	Е	F	l H1	H2
11"	4.21"	6.84"	5.51"	1.73	" [44]	1.18"	0.5" [15]
[279]	[107]	[174]	[140]			[30]	

[289]

# B248, 2-Way, Characterized Control Valve Stainless Steel Ball and Stem

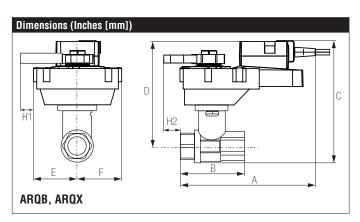




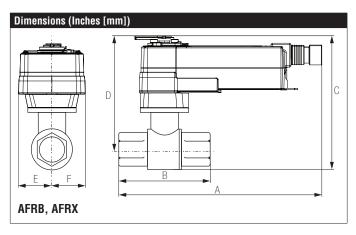
Dimensions	(Inches [mm])			a	<u> </u>
					С
	F	<u> </u>	B ,		▼
AFRB N4,	AFRX N4	•	A A	<b>&gt;</b>	
A 12.98"	B 4.93" [125]	C 10.29"	D 9.24" [235]	E F 3.39" [86]	

[261]

[330]



Α	В	С	D	Е	F	H1	H2
11"	4.21"	7.45"	6.11"	2.28	" [58]	0.75"	0.5" [15]
[279]	[107]	[190]	[155]			[20]	



Α	В	С	D	Е	F
10.82"	4.21" [107]	9.47" [241]	8.14" [207]	2.02	" [51]
[275]					

# On/Off, Spring Return Fail-Safe, 24 VAC





24 VAC ± 20%, 50/60 Hz, 24 VDC ± 10%
5 W
2.5 W
7.5 VA (class 2 power source)
3ft [1m], 18 GA appliance cable with 1/2" conduit connector
electronic throughout 0° to 95° rotation
on/off
90°
reversible with CW/CCW mounting
reversible with CW/CCW mounting
visual indicator, 0° to 95° (0° is full spring
return position)
5 mm hex crank (3/16" Allen), supplied
<75 sec
<20 sec
-22°F to 122°F [-30°C to 50°C]
-40°F to 176°F [-40°C to 80°C]
NEMA 2, IP54, UL enclosure type 2
cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/EC
<45 dB (A)
<62 dB (A)
maintenance free
ISO 9001

†Rated Impulse Voltage 800V, Type of action 1.AA, Control Pollution Degree 3





### Wiring Diagrams



# X INSTALLATION NOTES



Actuators with appliance cables are numbered.



Provide overload protection and disconnect as required.



Actuators may also be powered by 24 VDC.



Actuators may be powered in parallel. Power consumption must be



Parallel wiring required for piggy-back applications.



Meets cULus requirements without the need of an electrical ground



## WARNING! LIVE ELECTRICAL COMPONENTS!

During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

